IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 8, 18, and 20-21 in accordance with the following:

1. (Currently Amended) A light-transmitting apparatus for demultiplexing an input signal completing wavelength division multiplexing into signals of wavelength components with wavelengths different from each other and for transmitting each of said wavelength components through a transmission line provided for transmission of said wavelength components, said light-transmitting apparatus comprising:

a wavelength-count-detecting unit detecting the number of wavelengths of wavelength components included in said input signal and determining whether the number of wavelengths is normal or abnormal;

a plurality of extraction units provided for each of said wavelength components, said extraction units extracting an identifier set in each of said signals of said wavelength components;

a plurality of identifier-detecting units each associated with one of said extraction units and determining whether or not each of said identifiers extracted by said extraction units is normal; and

a judgment unit judging whether or not each of the components of the input signal is down or each of said identifier is abnormal for each of said wavelength components on the basis of a detection result output by said wavelength-count-detecting unit and a detection result output by said identifier-detecting unit associated with said wavelength component, wherein each of said signals of said wavelength components is a ~~frame~~flame signal and each said identifier is set in a predetermined position of said flame and identifies a channel.

2. (Original) A light-transmitting apparatus according to claim 1 wherein, if said wavelength-count-detecting unit outputs a normal result of detection but at least a particular one of said identifier-detecting units outputs an abnormal result of detection, said judgment unit determines that an identifier of one of said wavelength components that is associated with said

particular identifier-detecting unit is abnormal.

3. (Original) A light-transmitting apparatus according to claim 2 wherein, if said wavelength-count-detecting unit outputs an abnormal result of detection, said judgment unit determines that an optical input of one of said wavelength components is down.

4. (Withdrawn) A light-transmitting apparatus for demultiplexing an input signal completing wavelength division multiplexing into wavelength components with wavelengths different from each other and for transmitting each of said wavelength components through a transmission line provided for transmission of said wavelength component, said light-transmitting apparatus comprising:

a power comparator for comparing a light power of each of said wavelength components with a power of another one of said wavelength components to form a judgment as to whether or not said powers of said wavelength components are abnormal;

a plurality of identifier-detecting units each associated with one of said wavelength components and used for determining whether or not an identifier set in one of said wavelength components that has said associated wavelength is normal; and

a judgment unit for forming a judgment on existence of an error for each of said wavelength components on the basis of a detection result output by said power comparator and a detection result output by said identifier-detecting unit associated with said wavelength component.

5. (Withdrawn) A light-transmitting apparatus according to claim 4 wherein said power comparator compares a light power of each of said wavelength components with a power of an adjacent one of said wavelength components to form a judgment as to whether or not said powers of said wavelength components are abnormal;

6. (Withdrawn) A light-transmitting apparatus according to claim 4 wherein, if said power comparator outputs a normal result of detection but at least a particular one of said identifier-detecting units outputs an abnormal result of detection, said judgment unit determines that an identifier of one of said wavelength components that is associated with said particular identifier-detecting unit is abnormal.

7. (Withdrawn) A light-transmitting apparatus according to claim 6 wherein, if said power comparator outputs an abnormal result of detection, said judgment unit determines that an optical input of one of said wavelength components is down.

8. (Previously Presented) A light-transmitting apparatus for multiplexing input signals into a multiplexed signal and transmitting said multiplexed signal, said light-transmitting apparatus comprising:

a plurality of receiving units receiving said input signals from a plurality of transmission lines and for converting said input signals into optical signals having wavelengths different from each other;

a plurality of light-power-detecting units forming judgments as to whether or not light powers of said optical signals output by said receiving units are abnormal;

a multiplexing unit multiplexing said optical signals output by said receiving units;

an OSNR-detecting unit detecting signal-to-noise ratios of wavelength components included in a multiplexed signal output by said multiplexing unit and for forming a judgment as to whether or not the magnitude of a noise included in each of said wavelength components is abnormal; and

a judgment unit judging an error for each of said wavelength components on the basis of detection results received from said light-power-detecting units and a detection result received from said OSNR-detecting unit;

wherein said judgment unit judges the optical signal being down and outputs an alarm indicating that an input of the optical signal is down when said detection result of said light-power-detecting unit indicates the optical signal is abnormal, and judges the optical signal being degraded and outputs an alarm indicating that the optical signal is degraded when said detection result of said light-power-detecting unit indicates the optical signal is normal and said detection result of said OSNR-detecting unit regarding the optical signal corresponding to said wavelength component designates an abnormal signal-to-noise ratio, and wherein said alarm is displayed so that the optical signal being degraded and the input of the optical signal being down can be distinguished.

9. (Original) A light-transmitting apparatus according to claim 8, further comprising a variable optical filter passing on only said multiplexed signal's wavelength component having a wavelength in a pass band set in said variable optical filter, wherein said OSNR-detecting unit detects a signal-to-noise ratio of said wavelength component passed on by said variable optical

filter.

10. (Original) A light-transmitting apparatus according to claim 9 wherein said OSNR-detecting unit detects said signal-to-noise ratio of any particular one of said wavelength components on the basis of a light power of a signal light output by said variable optical filter set at a pass band having a peak-output wavelength coinciding with an intermediate wavelength between a peak-output wavelength of a signal-light level of said particular wavelength component and a peak-output wavelength of a signal-light level of one of said wavelength components that is adjacent to said particular wavelength component.

11. (Original) A light-transmitting apparatus according to claim 9 wherein said OSNR-detecting unit detects said signal-to-noise ratio of any particular one of said wavelength components on the basis of a noise level and a light power of a signal light output during an in-service state by said variable optical filter set at a pass band coinciding with a wavelength band of said particular wavelength component where said noise level is defined as a light power of a signal light output prior to said in-service state by said variable optical filter set at said pass band coinciding with said wavelength band of said particular wavelength component.

12. (Original) A light-transmitting apparatus according to claim 9 wherein said OSNR-detecting unit detects said signal-to-noise ratio of any particular one of said wavelength components on the basis of:

a light power of a signal light output by said variable optical filter set at a pass band having a peak-output wavelength coinciding with an intermediate wavelength between a peak-output wavelength of a signal-light level of said particular wavelength component and a peak-output wavelength of a signal-light level of one of said wavelength components that is adjacent to said particular wavelength component; and

a light power of a signal light output by said variable optical filter set at a pass band having a peak-output wavelength coinciding with a peak-output wavelength of a signal-light level of said particular wavelength component.

13. (Original) A light-transmitting apparatus according to claim 9 wherein said judgment unit determines that a particular one of said wavelength components has deteriorated if detection results output by said light-power-detecting unit for said wavelength components are normal but a detection result output by said OSNR-detecting unit for said particular wavelength

component is abnormal.

14. (Withdrawn) A light-transmitting apparatus for multiplexing input signals into a multiplexed signal and transmitting said multiplexed signal, said light-transmitting apparatus comprising:

a plurality of receiving units for receiving said input signals from a plurality of transmission lines and for converting said input signals into optical signals having wavelengths different from each other;

a plurality of light-power-detecting units for forming judgments as to whether or not light powers of said optical signals output by said receiving units are abnormal;

a multiplexing unit for multiplexing said optical signals output by said receiving units;

a noise-adding unit for adding a noise to each of wavelength components included in a multiplexed signal output by said multiplexing unit;

a variable optical filter passing on only one of said wavelength components that pertains to said multiplexed signal including said added noises and has a wavelength in a pass band set in said variable optical filter;

a light-receiving unit for detecting a quality of a signal light of a particular one of said wavelength components which is output by said variable optical filter set at a pass band coinciding with a wavelength band of said particular wavelength; and

a judgment unit for forming a judgment on an error for each of said wavelength components on the basis of detection results received from said light-power-detecting units and a detection result received from said light-receiving unit.

15. (Withdrawn) A light-transmitting apparatus for multiplexing input signals into a multiplexed signal and transmitting said multiplexed signal, said light-transmitting apparatus comprising:

a plurality of receiving units for receiving said input signals from a plurality of transmission lines and for converting said input signals into optical signals having wavelengths different from each other;

a light-power-detecting unit for forming a judgment as to whether or not light powers of said optical signals output by said receiving units are abnormal;

an OSNR-detecting unit for detecting signal-to-noise ratios of said optical signals output by said receiving units and for forming a judgment as to whether or not the magnitude of a noise included in each of said optical signals is abnormal; and

a judgment unit for forming a judgment on an error for each of said optical signals on the basis of a detection result received from said light-power-detecting unit and a detection result received from said OSNR-detecting unit.

16. (Withdrawn) A light-transmitting apparatus according to claim 15, further comprising:

a plurality of couplers each used for splitting an optical signal output by one of said receiving units; and

a plurality of optical switches each used for passing on or blocking an optical signal output by one of said couplers,

wherein:

said light-power-detecting unit forms a judgment as to whether or not a light power of an optical signal output by any one of said optical switches is abnormal; and

said OSNR-detecting unit detects a signal-to-noise ratio of an optical signal output by any one of said optical switches and forms a judgment as to whether or not the magnitude of a noise included said optical signals is abnormal.

17. (Withdrawn) A light-transmitting apparatus according to claim 16 wherein said judgment unit determines that a particular one of said optical signals has deteriorated if detection results output by said light-power-detecting unit for said optical signals are normal but a detection result output by said OSNR-detecting unit for said particular optical signal is abnormal.

18. (Currently Amended) A wavelength-division-multiplexing communication system including a first line terminal equipment, a second line terminal equipment, a plurality of transmission paths connected to a receiving side of said first line terminal equipment and an optical transmission line connecting said first line terminal equipment to said second line terminal equipment, said wavelength-division-multiplexing communication system comprising:

a plurality of receiving units provided in said first line terminal equipment and receiving input signals having wavelengths different from each other from said respective transmission paths and outputting wavelength components each generated at one of said wavelengths to include an identifier;

a multiplexing unit provided in said first line terminal equipment and multiplexing signal lights representing said wavelength components output by said receiving units to generate a

wavelength-division-multiplexed signal and for transmitting said wavelength-division-multiplexed signal to said second line terminal equipment through said optical transmission line;

a wavelength-count-detecting unit provided in said second line terminal equipment and detecting the number of wavelengths of wavelength components included in said wavelength-division-multiplexed signal received from said first line terminal equipment through said optical transmission line;

a demultiplexing unit provided in said second line terminal equipment and used for demultiplexing said wavelength-division-multiplexed signal received from said first line terminal equipment through said optical transmission line into said wavelength components and for outputting said wavelength components to output terminals;

a plurality of extraction units provided for each of said wavelength components in said second line terminal equipment, said extraction units extracting said identifier set in each of said wavelength components;

a plurality of identifier-detecting units each associated with one of said extraction units and determining whether or not each said identifier extracted by said extraction units is normal; and

a judgment unit provided in said second line terminal equipment judging whether or not an optical signal is down or said identifier is abnormal for each of said wavelength components on the basis of a detection result output by said wavelength-count-detecting unit and a detection result output by said identifier-detecting unit associated with said wavelength component, wherein each of said signals of said wavelength components is a ~~frame~~flame signal and each said identifier is set in a predetermined position of said flame and identifies a channel.

19. (Withdrawn) A wavelength-division-multiplexing communication system including a first line terminal equipment, a second line terminal equipment, a plurality of transmission paths connected to a receiving side of said first line terminal equipment and an optical transmission line connecting said first line terminal equipment to said second line terminal equipment, said wavelength-division-multiplexing communication system comprising:

a plurality of receiving units provided in said first line terminal equipment and used for receiving input signals having wavelengths different from each other from said respective transmission paths and outputting wavelength components each generated at one of said wavelengths to include an identifier;

a multiplexing unit provided in said first line terminal equipment and used for multiplexing signal lights representing said wavelength components output by said receiving units to generate

a wavelength-division-multiplexed signal and for transmitting said wavelength-division-multiplexed signal to said second line terminal equipment through said optical transmission line;

a power comparator provided in said second line terminal equipment and used for comparing a light power of each of said wavelength components contained in said wavelength-division-multiplexed signal received from said first line terminal equipment through said optical transmission line with a power of another one of said wavelength components to form a judgment as to whether or not said powers of said compared wavelength components are abnormal;

a demultiplexing unit provided in said second line terminal equipment and used for demultiplexing said wavelength-division-multiplexed signal received from said first line terminal equipment through said optical transmission line into said wavelength components and for outputting said wavelength components to output terminals;

a plurality of identifier-detecting units provided in said second line terminal equipment, each associated with one of said wavelength components and used for determining whether or not an identifier set in a wavelength component having said associated wavelength is normal; and

a judgment unit provided in said second line terminal equipment and used for forming a judgment on existence of an error for each of said wavelength components on the basis of a detection result output by said power comparator and a detection result output by said identifier-detecting unit associated with said wavelength component.

20. (Previously Presented) A method of transmitting light, comprising:

detecting a number of wavelengths included in an input signal;

determining whether the number of wavelengths is normal;

storing an identifier set in a wavelength component associated with each wavelength in a predetermined position for each wavelength;

extracting the identifier set in each of the wavelength components;

determining whether or not said identifier set in said wavelength component associated with each wavelength is normal; and

judging whether said wavelength component is missing based on the number of wavelengths or whether said identifier set is abnormal.

21. (Currently Amended) An apparatus for receiving an optical signal having an identifier stored in a predetermined position in each of a plurality of wavelength components,

comprising:

an extraction unit extracting the identifier stored in a predetermined position in each of a plurality of wavelength components;

a determination unit determining whether or not said identifier stored in a predetermined position in each of the plurality of wavelength components is normal; and

a judgment unit judging whether or not each of the plurality of wavelength components in an optical signal is down and whether said identifier is abnormal for each of said wavelength components.